

REMARKS

Claims 1-20 are pending in this application. Attached hereto is a complete listing of all claims in the application, with their current status listed parenthetically. By this Response, claims 1 and 6 are amended, and are presented with markings indicating their current amendments.

1st Rejection Under 35 U.S.C. § 103

In paragraph 2 of the Office Action, claims 1-4, 6-9, 11-17 and 19-20 stand rejected as unpatentable under 35 U.S.C. § 103(a) over U.S. patent 6,754,195 ("Webster") in view of U.S. Patent 6,853,835 ("Wynbeek"). Applicant respectfully traverses this rejection.

A. The Law of Obviousness

In order to establish a *prima facie* case of obviousness, three basic criteria must be met:

"First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined), must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure." M.P.E.P. § 2142.

I. All Claim Limitations neither Taught nor Suggested

Applicant submits that independent claims 1, 6 and 11 recite elements that are neither taught nor suggested in either Webster or Wynbeek, or a combination thereof.

Specifically, independent claim 1 recites, in part:

". . . providing an ultra-wideband device, the ultra-wideband device structured to transmit a plurality of ultra-wideband pulses ~~operate~~ at a first chip rate;
receiving a plurality of ultra-wideband pulses at a second chip rate. . ."

Applicant has amended claim 1 to emphasize that the ultra-wideband device "transmits" during "operation." Independent claim 6 has been amended similarly.

In the Office Action, the Examiner cites Wynbeek for teaching ultra-wideband communications, and combines Wynbeek with Webster, stating:

"At the time the invention was made it would have been obvious to modify the mixed signal devices with first and second transceivers of Webster with the ultra wideband transmitter and receiver of the devices in Wynbeek."

An examination of Wynbeek reveals that the "base station" includes an ultrawide-band receiver and the "mobile" includes an ultrawide-band transmitter (see FIG. 2). Wynbeek teaches operation of the base station and mobile as follows:

"In operation, communications from the base station communication device 203 are transmitted to the mobile communication device 220 using as traditional carrier wave-based transmission signal. . . In contrast, communications from the mobile communication device 220 to the base station communication device 203 are conducted using ultrawide-band transmission pulse train" (col. 3, lines 51-58).

Thus, the base station **receives** ultra-wideband (UWB) signals, and the mobile **transmits** UWB signals. Neither the base station, nor the mobile **receive and transmit** UWB signals. In fact, Wynbeek describes FIG. 2 as "an **asymmetric** wireless communication system." This is because Wynbeek teaches that "more power is required for ultra-wideband reception than carrier wave reception, communication from the base station communication device to the mobile communication device is carried out by carrier wave transmission (col. 2, lines 25-29).

In contrast, Applicant's independent claims 1 and 6 both recite an ultra-wideband device that **both receives and transmits** ultra-wideband signals. As discussed above, Wynbeek teaches directly away from this concept.

Regarding independent claim 11, the Examiner cites Figure 3, element 301 of Webster for teaching the following claim elements:

" . . . wherein either of, or both the first data frame and the second data frame are comprised of:
an automatic gain control section;
a power level section;
an automatic gain control tuning section; and
a synchronization section."

However, a reading of Webster, specifically, column 7, lines 23-53, that discusses FIG. 3, fails to reveal any teaching or suggestion of Applicant's above-recited claim elements. Therefore, Applicant submits that these claim elements are neither taught nor suggested by Webster.

In view of the above discussion, Applicant respectfully requests the Examiner reconsider and withdrawal his rejection of independent claims 1, 6 and 11. Because claims 2-4, 7-9 and 12-17 depend from claims 1, 6 and 10, respectively, it is respectfully submitted that the rejection of claims 2-4, 7-9 and 12-17 have been traversed by virtue of their dependency from claims 1, 6 and 10, respectively. M.P.E.P. § 2143.03.

2nd Rejection Under 35 U.S.C. § 103

In paragraph 3 of the Office Action, the Examiner rejects claims 5 and 10 under 35 USC §103(a) as being obvious over Webster in view of Wynbeek and further in view of U.S. patent 6,856,610 ("Schmidl"). Applicant respectfully traverses this rejection.

As described in the above remarks, Applicant submits that Webster and Wynbeek are incapable of teaching the elements of the claimed invention, and even actively teach away from the claimed elements. Although the Examiner cites to Schmidl, Schmidl does not provide the teachings missing in Webster and Wynbeek.

As claims 5 and 10 depend from claims 1 and 6, respectively, it is respectfully submitted that the rejection of claims 5 and 10 have been traversed by virtue of their dependency from claims 1 and 6, respectively. M.P.E.P. § 2143.03.

3rd Rejection Under 35 U.S.C. § 103

In paragraph 4 of the Office Action, the Examiner rejects claim 18 under 35 USC §103(a) as being obvious over Webster in view of Wynbeek and further in view of U.S. patent 5,463,657 ("Rice"). Applicant respectfully traverses this rejection.

As described in the above remarks, Applicant submits that Webster and Wynbeek are incapable of teaching the elements of the claimed invention, and even actively teach away from the claimed elements. Although the Examiner cites to Rice, Rice does not provide the teachings missing in Webster and Wynbeek.

As claim 18 depends from claim 11, it is respectfully submitted that the rejection of claim 18 has been traversed by virtue of its dependency from claim 11. M.P.E.P. § 2143.03.

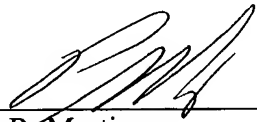
Conclusion

Applicant believes that this Response has addressed all items in the Office Action and now places the application in condition for allowance. Accordingly, favorable reconsideration and allowance of claims 1-20 at an early date is solicited. Should any issues remain unresolved, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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Date



Peter R. Martinez
Attorney for Applicant(s)
Reg. No. 42,845

c/o PULSE-LINK, INC.
1969 Kellogg Avenue
Carlsbad, California 92008
Telephone No.: (760) 607-0844